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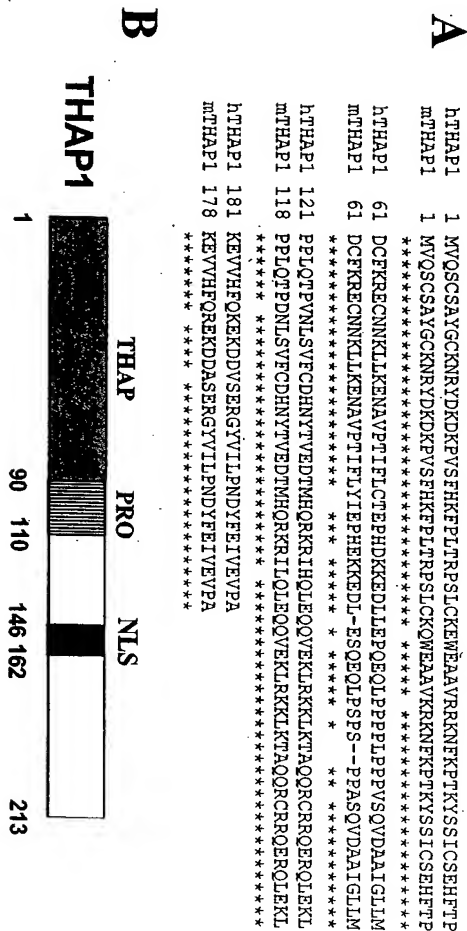
THAP PROTEINS AS NUCLEAR RECEPTORS FOR CHEMOKINES  
AND ROLES IN TRANSCRIPTIONAL REGULATION, CELL  
PROLIFERATION AND CELL DIFFERENTIATION

Girard et al.

Appl. No.: Unknown

Atty Docket: BIOBANK.012A

FIGURE 1



*THAP PROTEINS AS NUCLEAR RECEPTORS FOR CHEMOKINES  
AND ROLES IN TRANSCRIPTIONAL REGULATION, CELL  
PROLIFERATION AND CELL DIFFERENTIATION*  
*Girard et al.*

*Appl. No.: Unknown*

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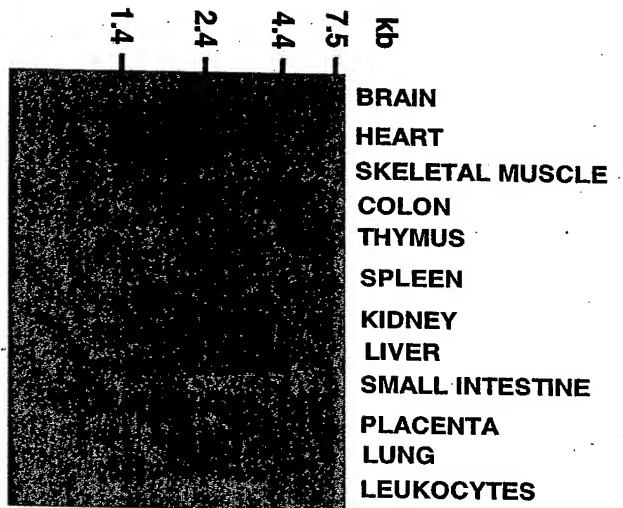
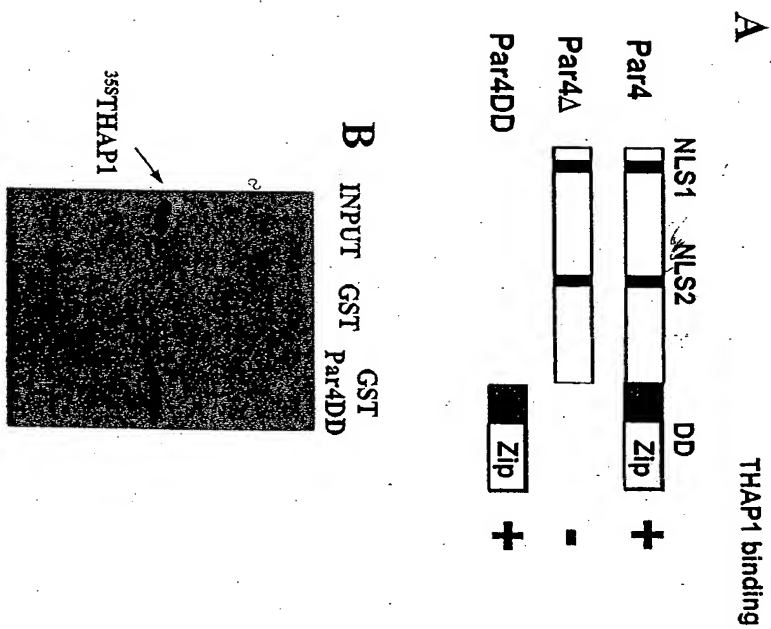


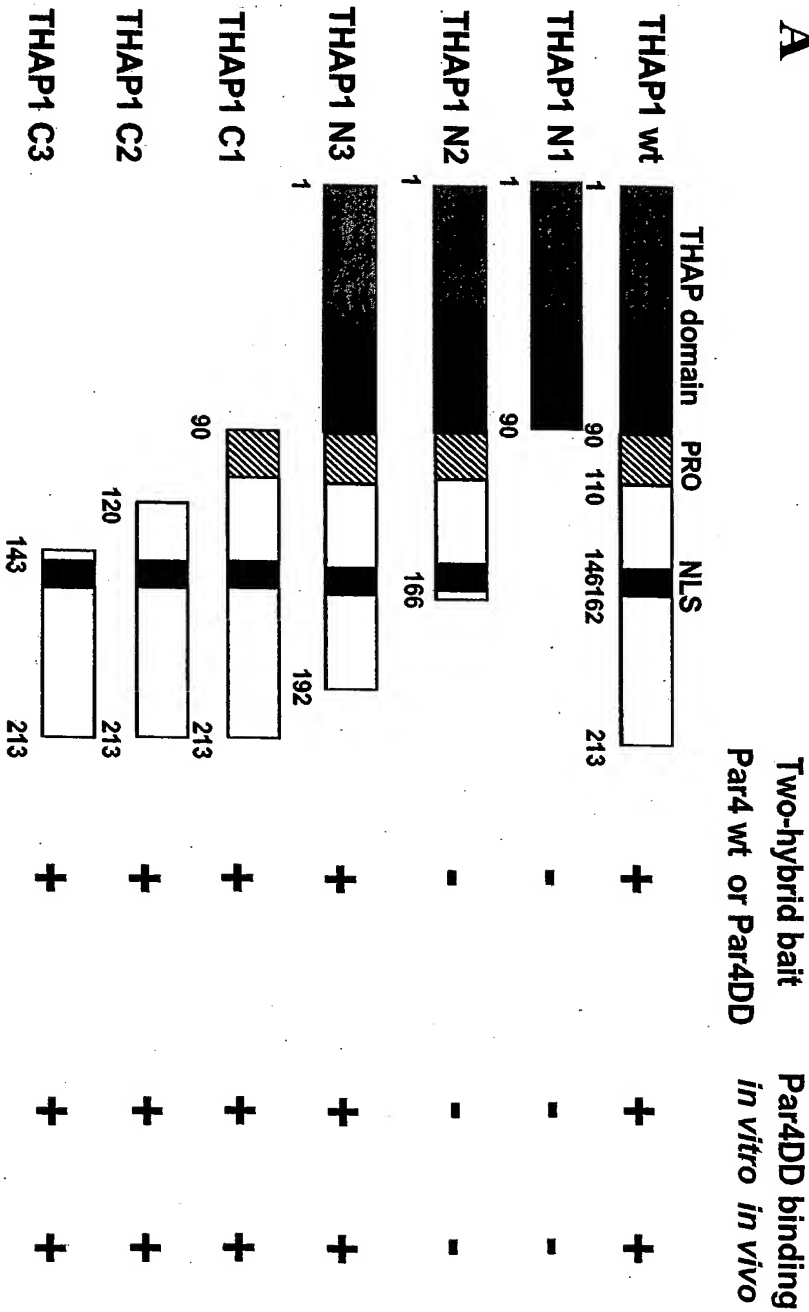
FIGURE 2

Figure 3



**A**

FIGURE 4A



THAP PROTEINS AS NUCLEAR RECEPTORS FOR CHEMOKINES  
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PROLIFERATION AND CELL DIFFERENTIATION

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Figure 4b

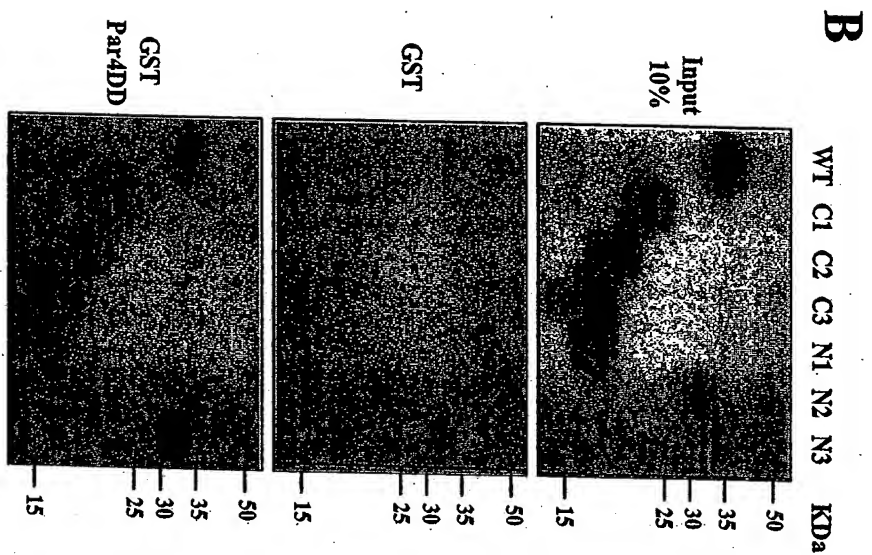


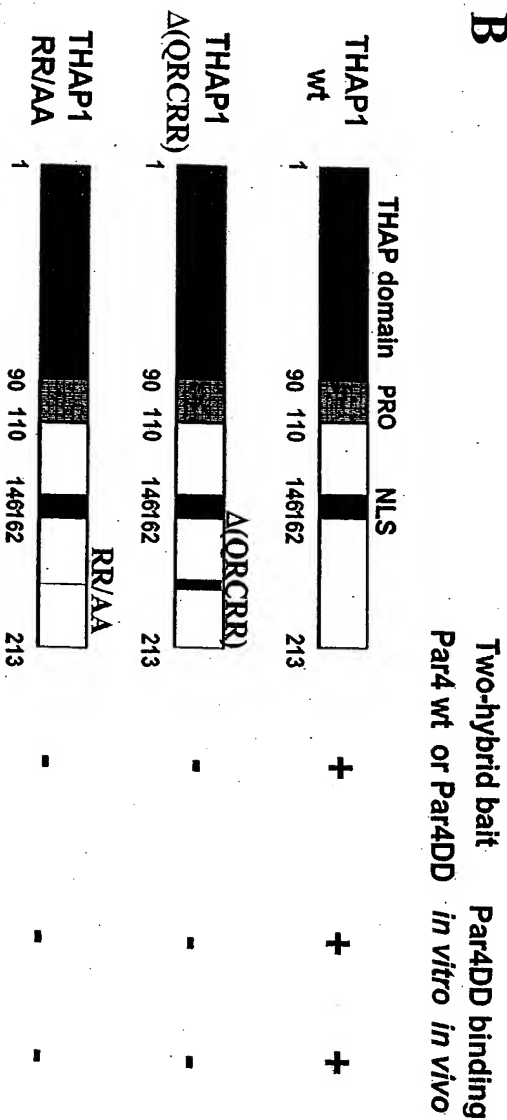
Figure 5

A

**mZIP** -VLEDVAAAEQGLREL--QGRGRCRERVCALRAAAEQREARCRDG  
**mTHAP-1** -QLEQOVEKLRKKLKTAAQQRRCRQERQLEKLEKVVHFOREKDDASE  
**hTHAP-1** -QLEQOVEKLRKKLKTAAQQRRCRQERQLEKLEKVVHFOREKDDVSE

Consensus Par4 binding site: LE (X<sub>12-14</sub>) QRXRRQXR (X<sub>11</sub>) QXE

B



THAP PROTEINS AS NUCLEAR RECEPTORS FOR CHEMOKINES  
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Figure 6

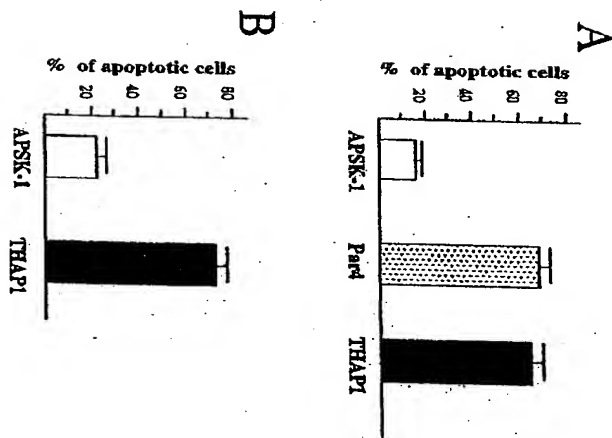
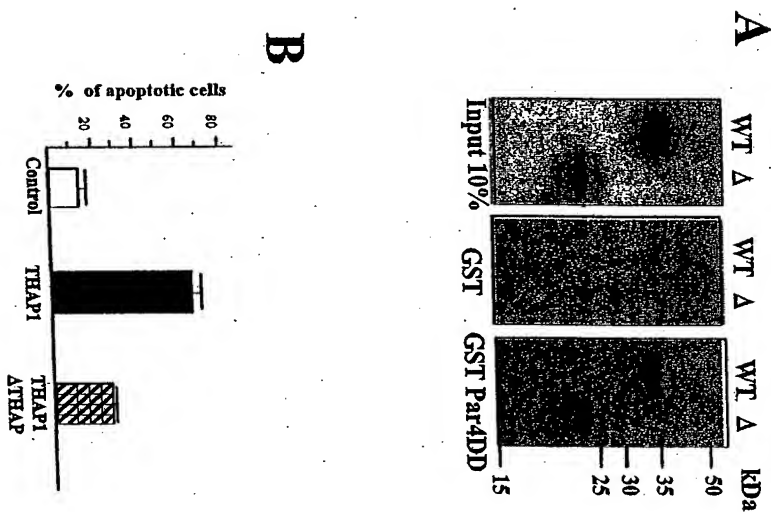




Figure 7



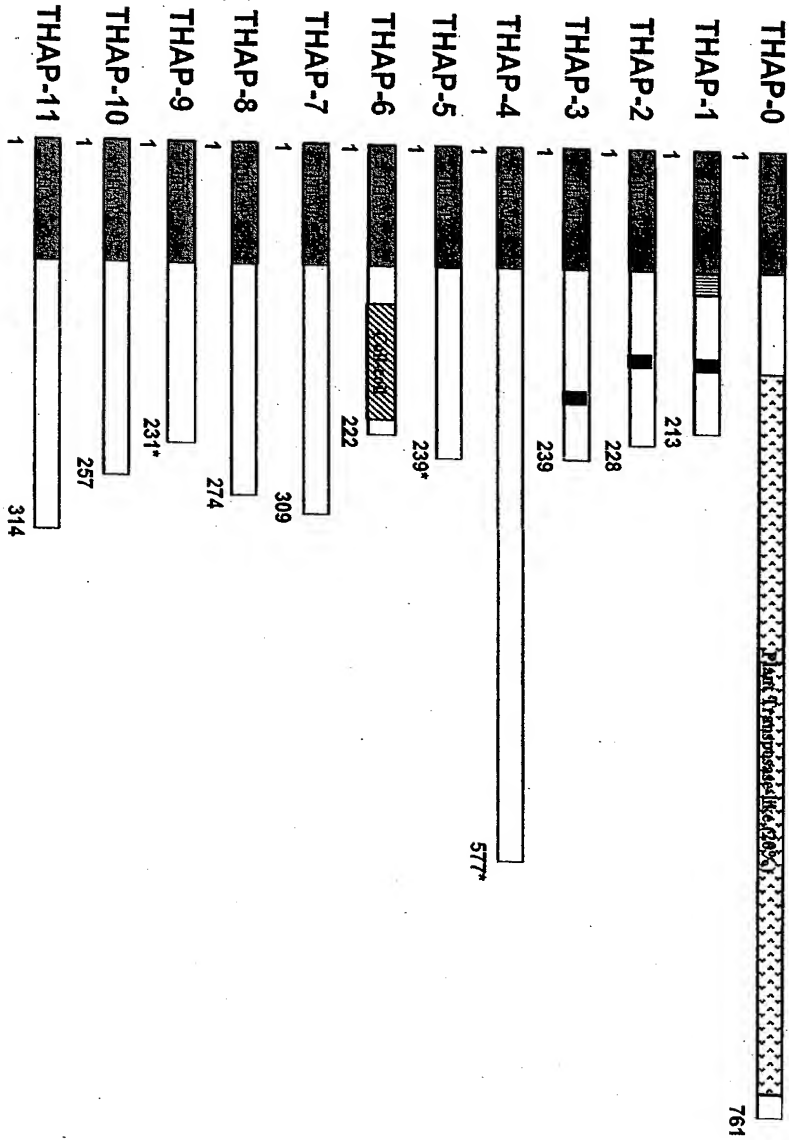
THAP PROTEINS AS NUCLEAR RECEPTORS FOR CHEMOKINES  
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Figure 8



THAP PROTEINS AS NUCLEAR RECEPTORS FOR CHEMOKINES  
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Figure 9

A

hTHAP1 1 **MTQSC**AVGCKRKYDCKD**RPVSF**EP**ITPS**IC**KEW**EA**VR**RRK**PKYS**IS**IS**SE**HTP**  
dmttransposase 1 **KX**IC**K**EC**CK**AVTGW**ML**EV**HC**CL**IK** **MT**W**OST**G**---**CS**LG**ES**SL**Q**DT**END  
consensus 1 mv Cs y Ckn K v K I Ppslck WE v Ikn S IC HF

hTHAP1 61 **DO**CK**---**RECN**NT**L**KE**NV**NT**IL**CT**EH**DK**  
dmttransposase 51 **SO**IK**AP**AK**G**Q**IT**TR**---**EN**AD**AV**---**K**VE**EE**BE**K**I**  
consensus 61 KkApakgy K L AVPT I Ep

B

hTHAP1 1 **VTQS**---S**NY**CK**NR**Y**Q**---**NR**VS**ET**RE**ET**IT**PS**IC**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
hTHAP3 1 **VTQS**---S**NY**CK**NR**Y**Q**---**NR**VS**ET**RE**ET**IT**PS**IC**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
hTHAP5 1 **VTQS**---S**NY**CK**NR**Y**Q**---**NR**VS**ET**RE**ET**IT**PS**IC**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
hTHAP8 1 **VTQS**---S**NY**CK**NR**Y**Q**---**NR**VS**ET**RE**ET**IT**PS**IC**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
hTHAP2 1 **VTQS**---S**NY**CK**NR**Y**Q**---**NR**VS**ET**RE**ET**IT**PS**IC**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
hTHAP7 1 **VTQS**---S**NY**CK**NR**Y**Q**---**NR**VS**ET**RE**ET**IT**PS**IC**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
hTHAP9 1 **VTQS**---S**NY**CK**NR**Y**Q**---**NR**VS**ET**RE**ET**IT**PS**IC**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
hTHAP11 1 **VTQS**---S**NY**CK**NR**Y**Q**---**NR**VS**ET**RE**ET**IT**PS**IC**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
hTHAP10 1 **VTQS**---S**NY**CK**NR**Y**Q**---**NR**VS**ET**RE**ET**IT**PS**IC**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
dmttransposase 1 **VTQS**---S**NY**CK**NR**Y**Q**---**NR**VS**ET**RE**ET**IT**PS**IC**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
consensus 1 mpk C A C nr K k vsnkfip hd it mv v I w

hTHAP1 47 **---**TY**VS**IC**---**HP**PO**C**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
hTHAP3 48 **---**RO**TV**IC**---**HP**PO**C**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
hTHAP5 50 **---**SK**VO**IC**---**HP**PO**C**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
hTHAP8 51 **---**S**CHO**IC**---**HP**PO**C**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
hTHAP4 49 **---**TY**VS**IC**---**HP**PO**C**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
hTHAP2 46 **---**GR**VT**IC**---**HP**PO**C**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
hTHAP0 45 **---**DK**TP**IC**---**HP**PO**C**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
hTHAP7 46 **---**PA**---**SE**VI**IC**---**HP**PO**C**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
hTHAP9 55 **---**PG**---**PC**AI**IC**---**HP**PO**C**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
hTHAP6 55 **---**PK**---**TC**GR**IC**---**HP**PO**C**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
hTHAP11 54 **---**TC**GR**IC**---**HP**PO**C**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
hTHAP10 46 **---**GG**---**ND**VS**IC**---**HP**PO**C**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
dmttransposase 38 **---**G**---**NS**---**IC**---**HP**PO**C**KE**W**EA****VR**RRK**PKYS**IS**IS**SE**HTP****---**CK  
consensus 61 **P** **IC**s**nt** **+** **K** **ik** **ap**h**it**

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90 96 24 85 70 55

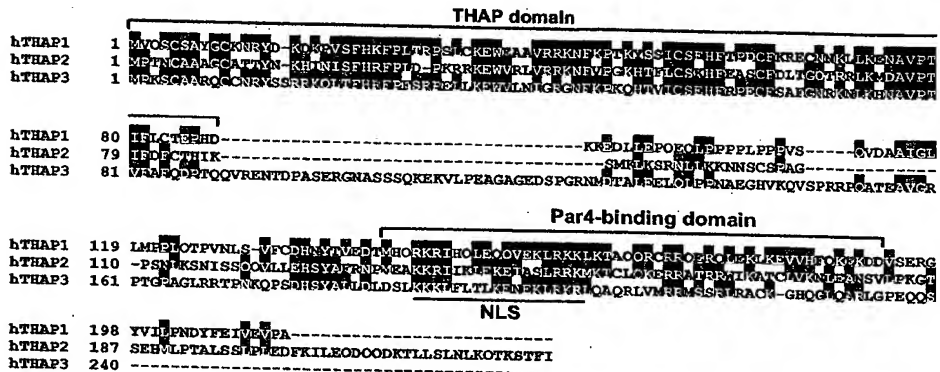
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35  
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36  
37

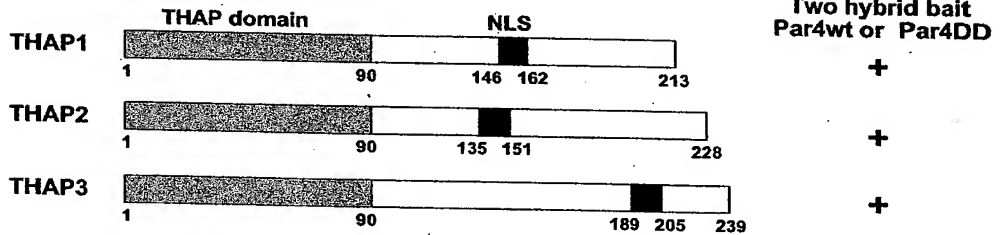
**conclusions**

Figure 10

A



B



C

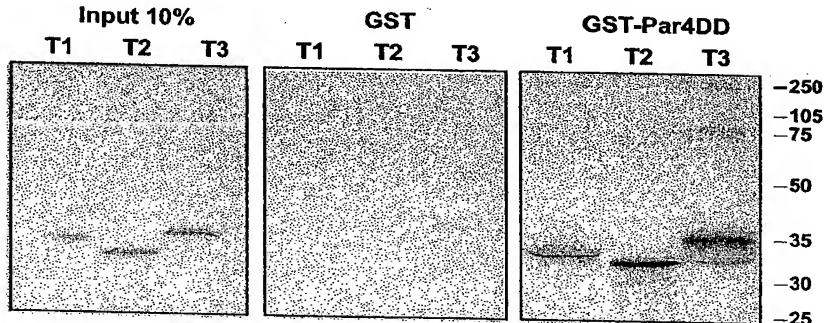
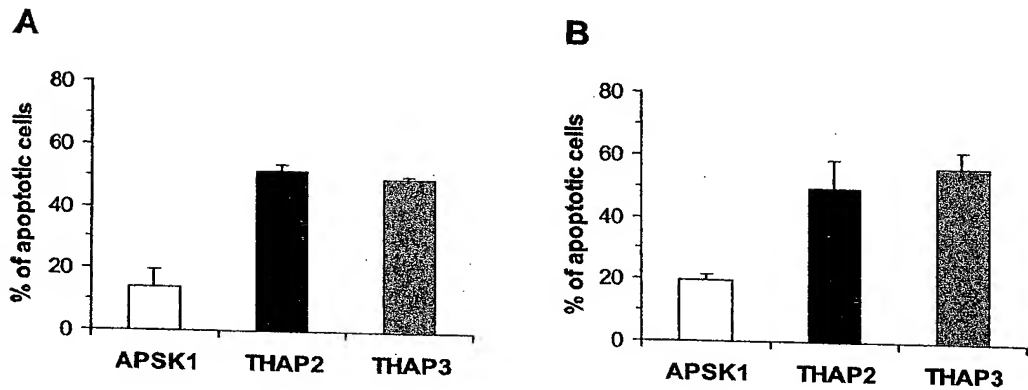


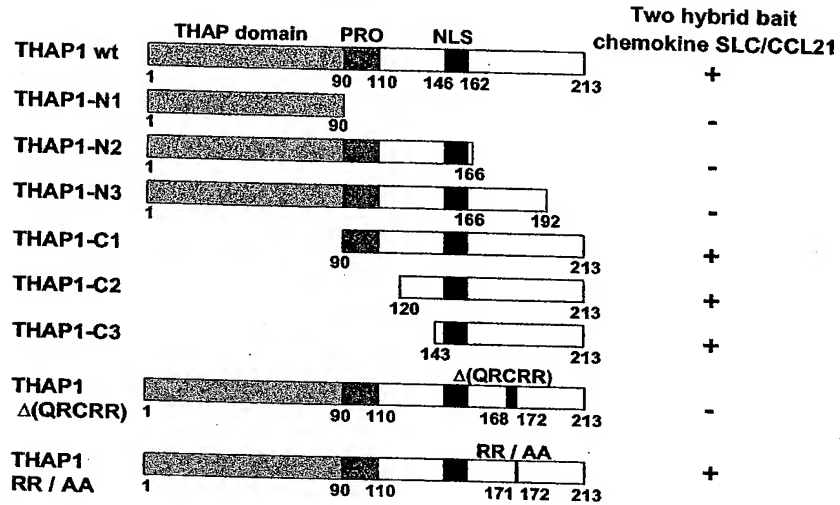
Figure 11



THAP PROTEINS AS NUCLEAR RECEPTORS FOR CHEMOKINES  
AND ROLES IN TRANSCRIPTIONAL REGULATION, CELL  
PROLIFERATION AND CELL DIFFERENTIATION  
Girard et al.

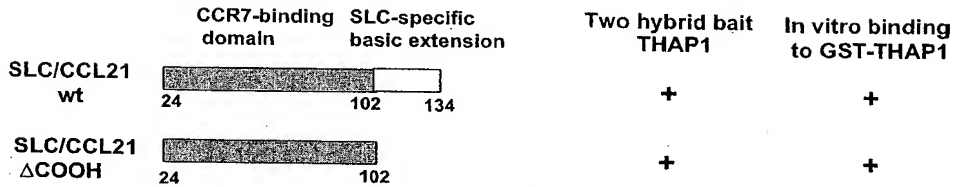
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Figure 12





**Figure 13**



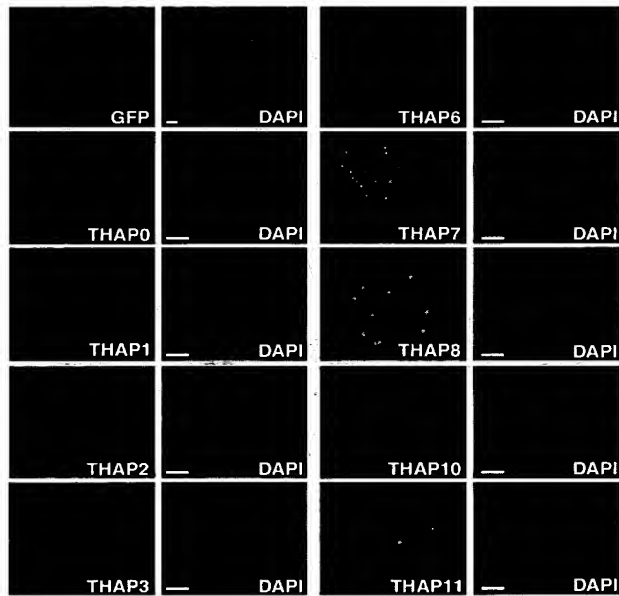
THAP PROTEINS AS NUCLEAR RECEPTORS FOR CHEMOKINES  
AND ROLES IN TRANSCRIPTIONAL REGULATION, CELL  
PROLIFERATION AND CELL DIFFERENTIATION

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FIGURE 14



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[illegible]

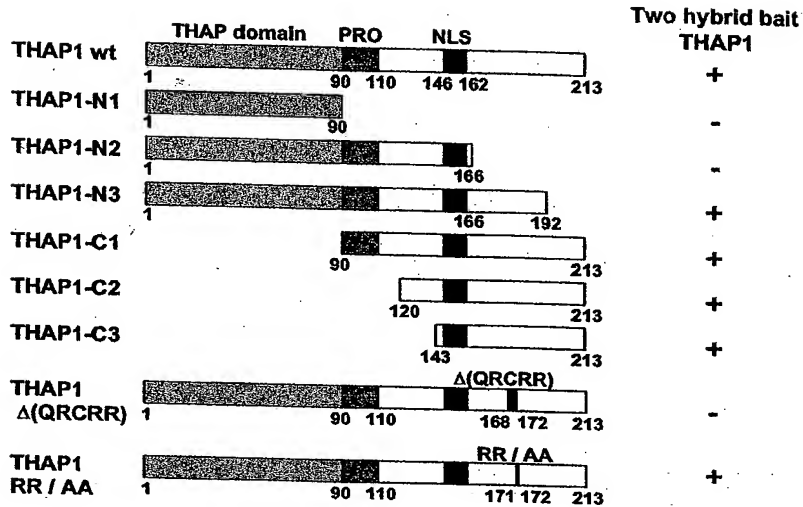
THAP PROTEINS AS NUCLEAR RECEPTORS FOR CHEMOKINES  
AND ROLES IN TRANSCRIPTIONAL REGULATION, CELL  
PROLIFERATION AND CELL DIFFERENTIATION  
Girard et al.

Appl. No.: Unknown

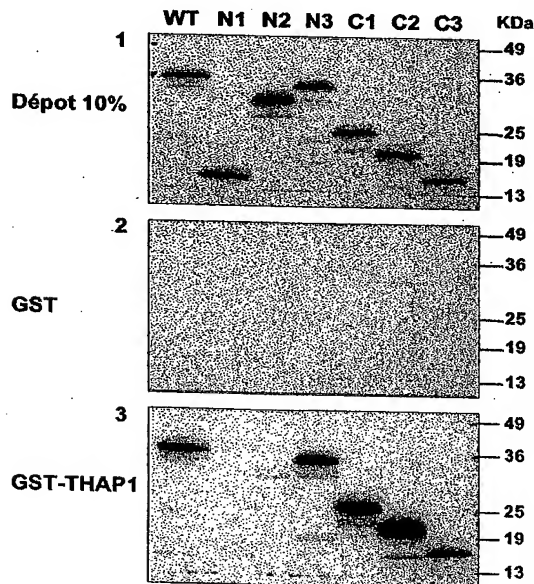
Atty Docket: BIOBANK.012A

FIGURE 16

A



B



THAP PROTEINS AS NUCLEAR RECEPTORS FOR CHEMOKINES  
AND ROLES IN TRANSCRIPTIONAL REGULATION, CELL  
PROLIFERATION AND CELL DIFFERENTIATION

Girard et al.

Appl. No.: Unknown

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Fig.  
17A

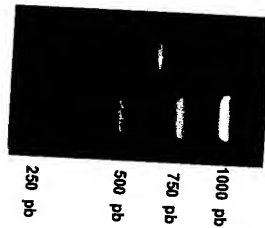
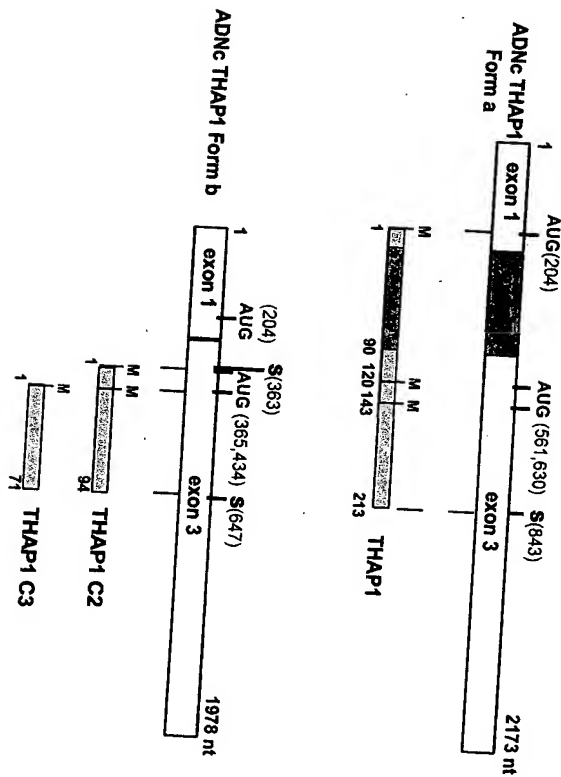


Fig.  
17B



THAP PROTEINS AS NUCLEAR RECEPTORS FOR CHEMOKINES  
AND ROLES IN TRANSCRIPTIONAL REGULATION, CELL  
PROLIFERATION AND CELL DIFFERENTIATION  
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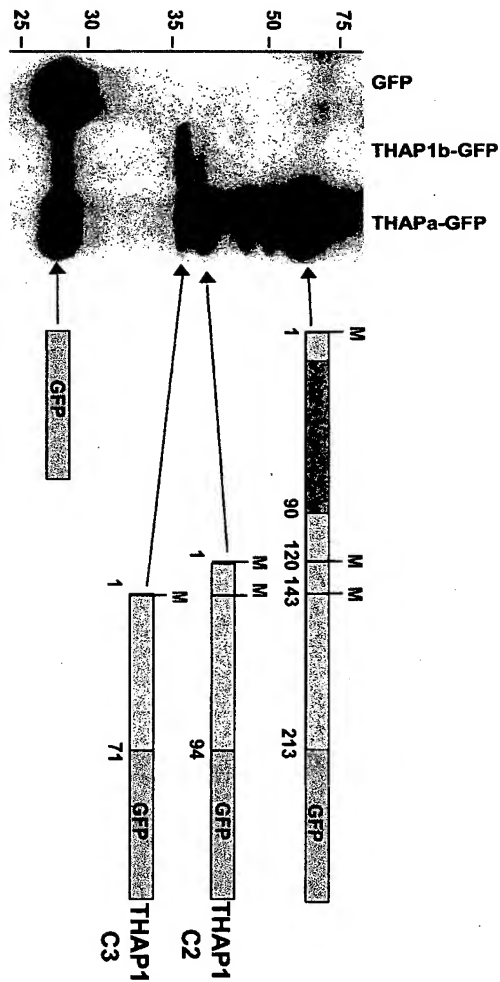


FIG. 17

Fig.  
17c

THAP PROTEINS AS NUCLEAR RECEPTORS FOR CHEMOKINES  
AND ROLES IN TRANSCRIPTIONAL REGULATION, CELL  
PROLIFERATION AND CELL DIFFERENTIATION

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Figure 18

A	GGGCAT	ACTAC	TGGCAA
	GGGCAA	ACTGT	GGGCAT
	GGGCAT	ACTAC	TGGCAA
	GGGCAA	ACTAC	TGGCAA
	GGGCCA	GTTGG	TTGCAA
	GGGCAT	GTAC	TGGCAA
	GGGCAA	CTGT	GGGCAA
	GGGCAA	CACTAC	TGGCAA
	GGGCAA	AGTAC	TGGCAA
B	TTGCCA	GTACTAAGTGT	GGGCAA
	CTGCCA	GTACATAAGTGT	GGGCAA
	TTGCCA	GTACTAAGTGT	GGGCAA
	CTGCCA	GTAGATACTGT	GGGCAA
	TTGCCA	GTAGTTAAGTGT	GGGCGA
	TTGCCA	GTAGTTAGTGT	GGGCAA
	TTGCCA	GTACCTACTAA	GGGCAA
	TTGCCA	GTAGTTAGTGT	GGGCAG
	CTGCCA	GTAGTAAGTGT	GGGCAG

1) DR-5 Consensus Motif  
GGGCAAnnnnnnTGGCAA  
(DR-4, DR-6)

2) ER-11 Consensus Motif  
TTGCCAnnnnnnnnnnGGGCAA  
(ER-12)

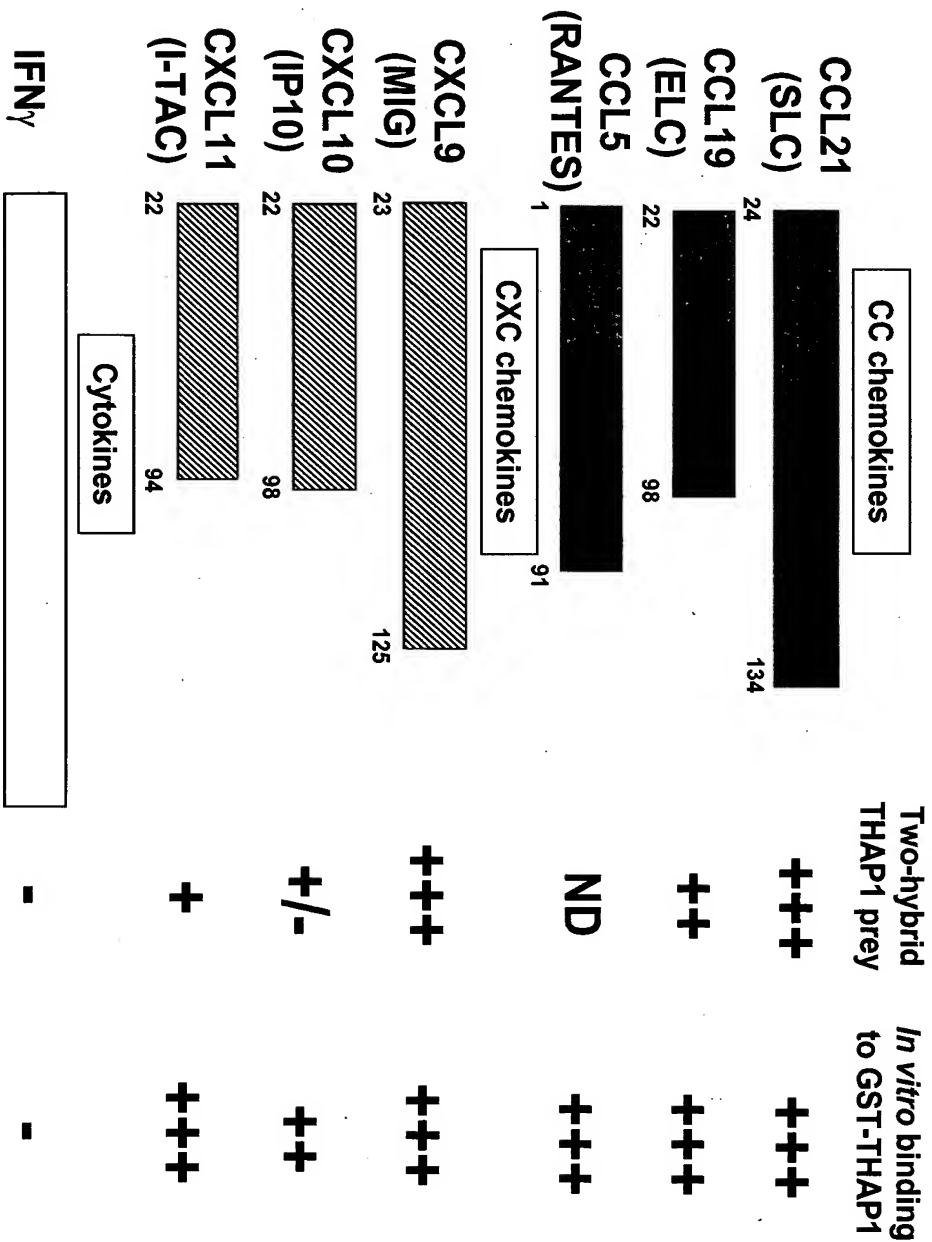


FIGURE 19

21

166



THAP PROTEINS AS NUCLEAR RECEPTORS FOR CHEMOKINES  
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Girard et al.

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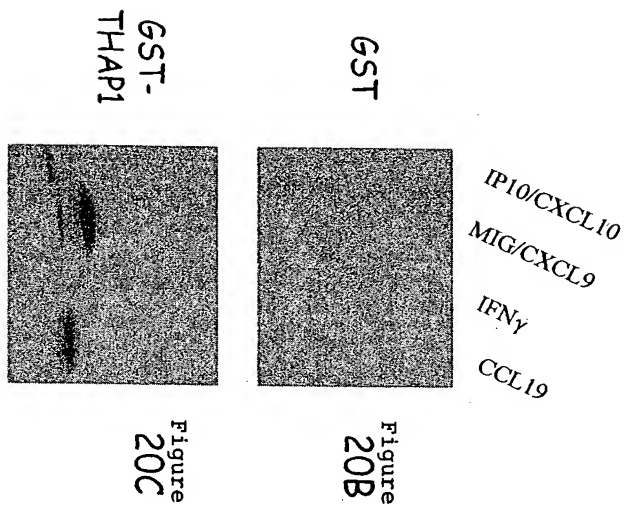
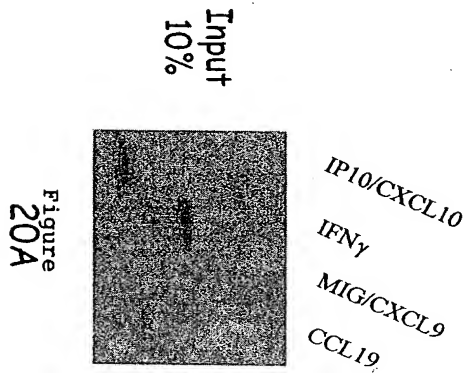


Fig. 21A

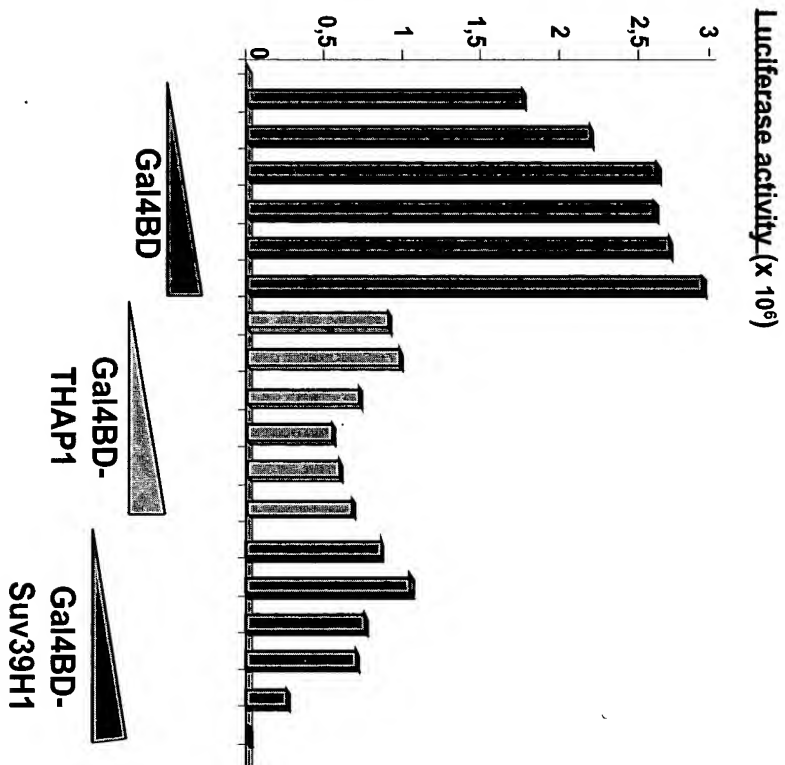
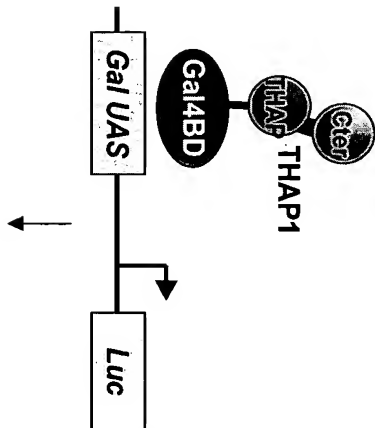


Fig. 21B

Figure 22A

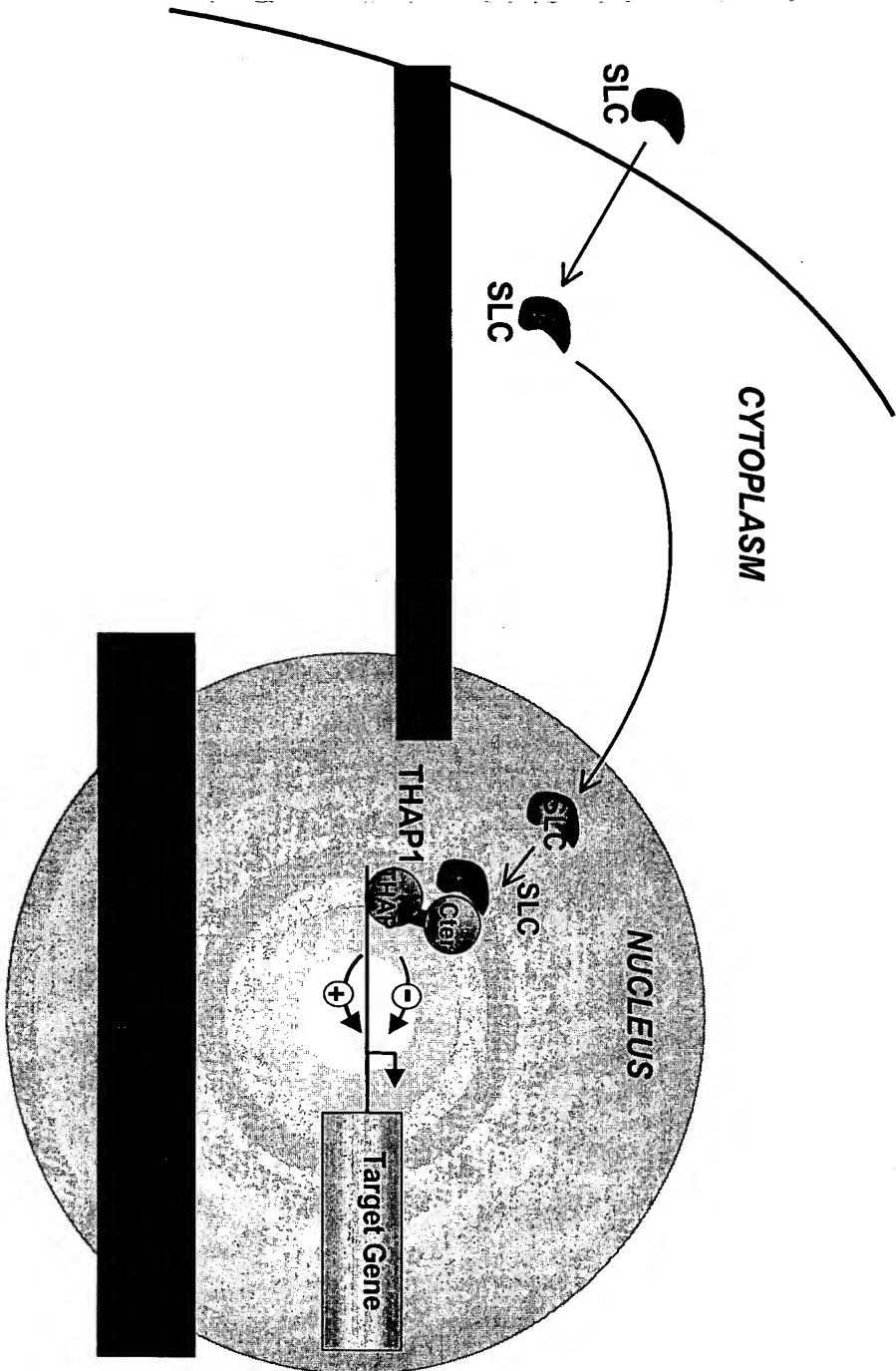


Figure 22B

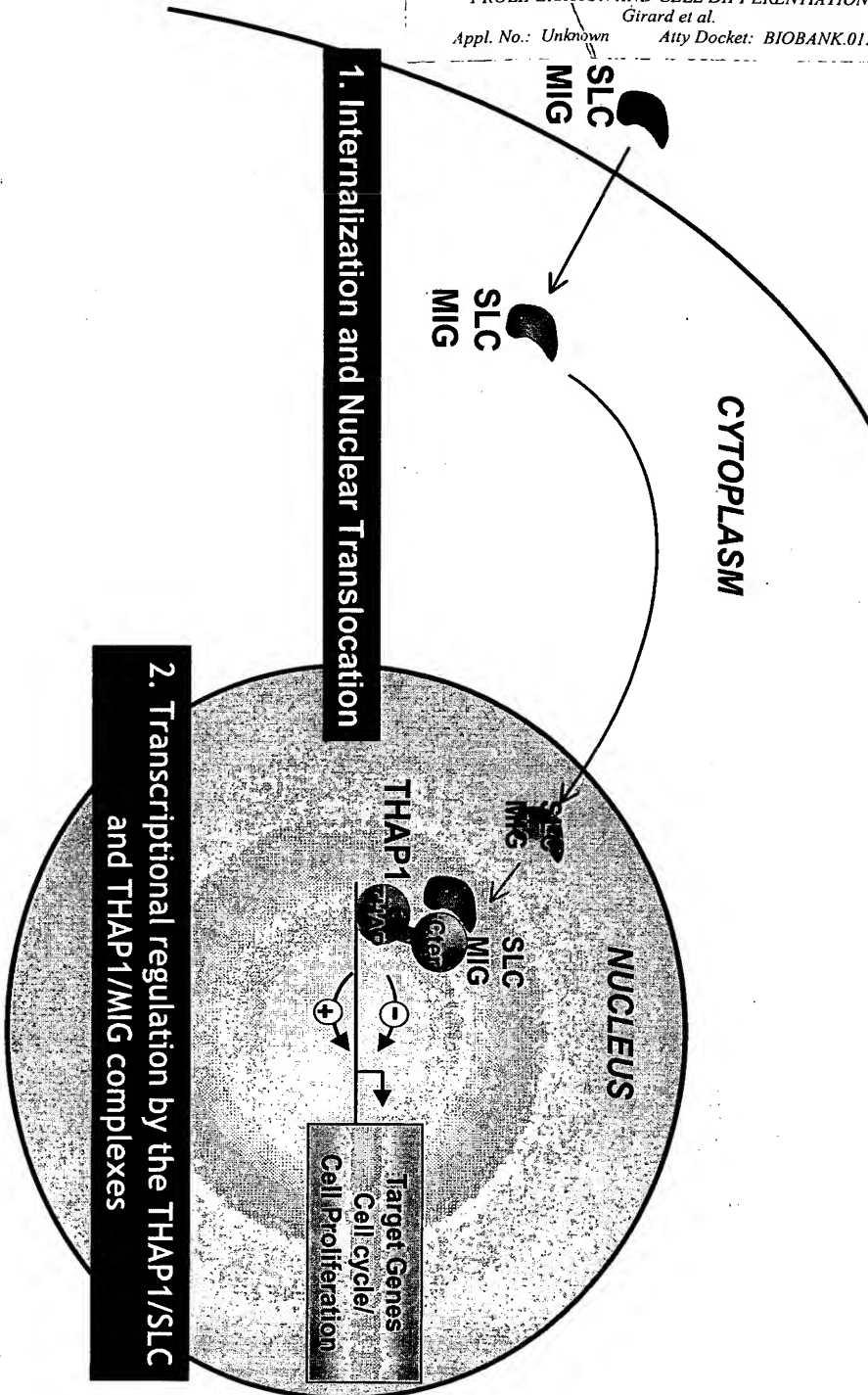


Figure 23

661 cttctctgac, ctgggccaag cctgcccag cctctctgtc ctctgcctgc ccagctggac  
721 atctctgggc ctctctggag accagtgggg tgggctgtgg gggcgtcata ttggccctggc  
781 ttggcatccc tctgtggt gtacccctcc caggagcccc aggactagca agtcgccgag  
841 atgggggtgg ggacagtggt tgatgccaaa ggttgtgggg gcaggggcgg ggcaggagca  
901 ggaaagtc ctgagtc tcaccttggg caggagataa aggaqcacag ttccaggcgg  
961 ggctgagcta gggcgtagct gtgatttcag gggcacctct ggcgctggcc gtgatttcag  
1021 aatctcggt ctcttgctg actgattcctg ggagactgtg gatgataat gctgtgagt

The human *Fucosyltransferase TVII* promoter

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Girard et al.

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Figure 24

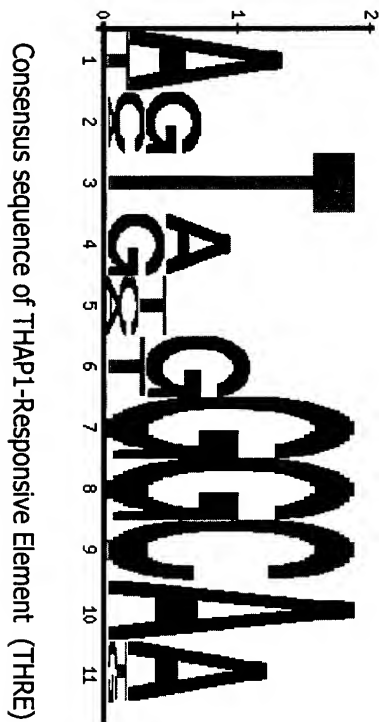


Figure 25A

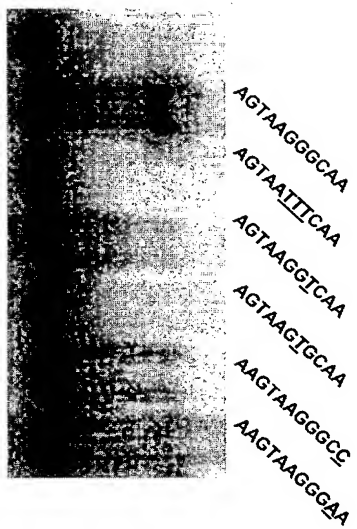


Figure 25B

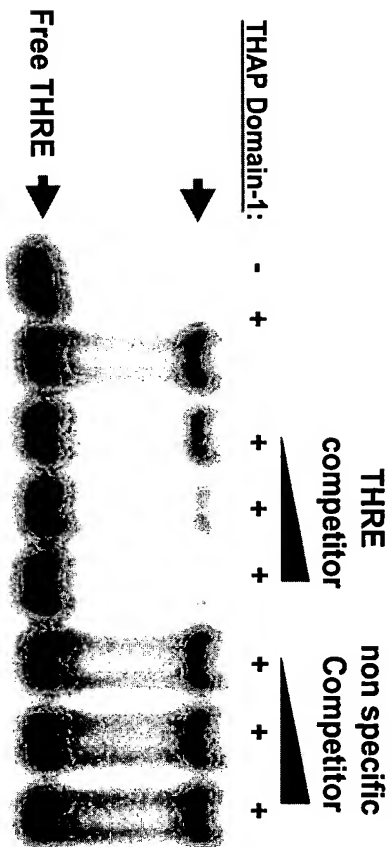


Figure 26A

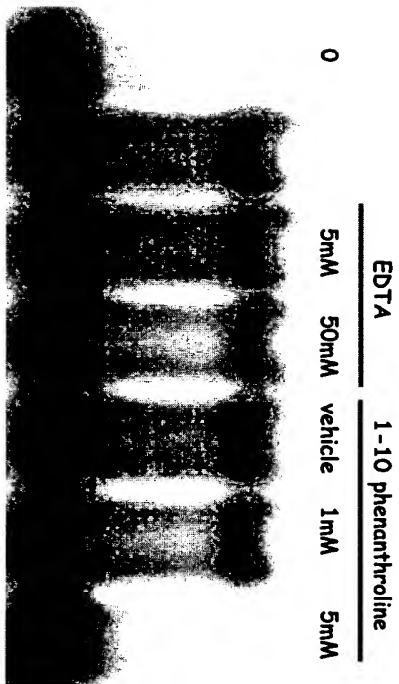
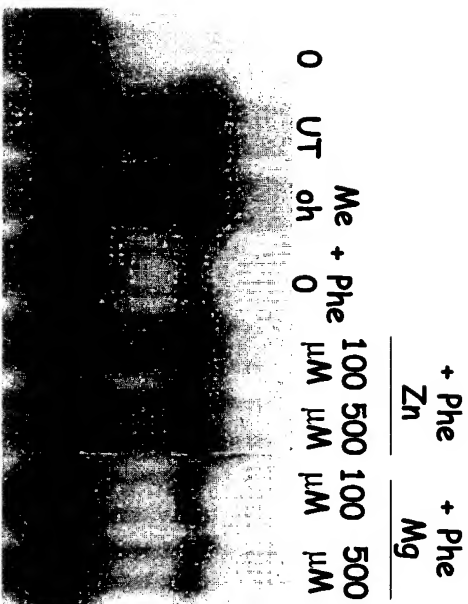


Figure 26B





## Figure 27

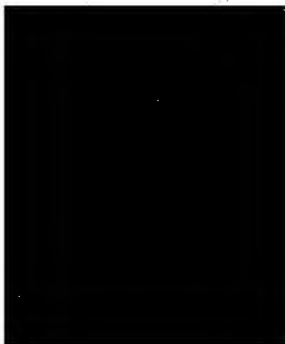
GFP-SLC

Fig. 27A

HeLa



Fig. 27B



GFP-MIG

Fig. 27C

HeLa



Fig. 27D



## Figure 28

phMIG-Flag  
PEF-puro

Fig. 28A

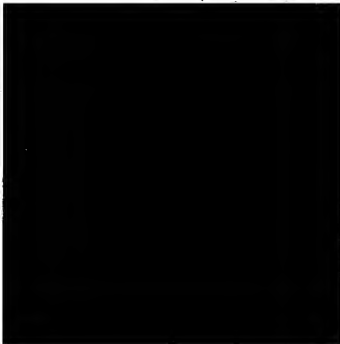
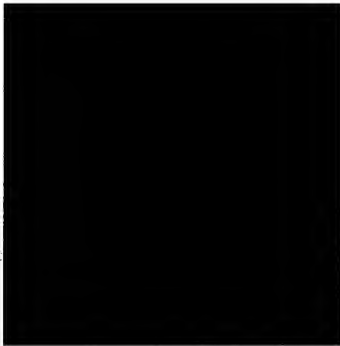


Fig. 28B

phMIG-Flag  
PEF-CXCR3a

Fig. 28C

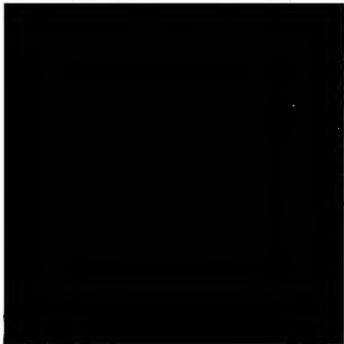


Fig. 28D

Anti-Flag Cy3

DAPI

THAP PROTEINS AS NUCLEAR RECEPTORS FOR CHEMOKINES  
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Girard et al.

Appl. No.: Unknown Atty Docket: BIOBANK.012A

Anti-Flag Cy3

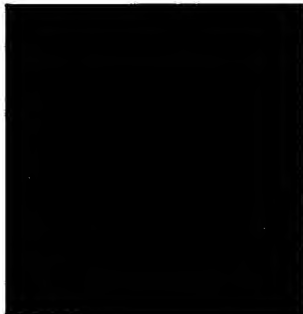


Fig. 29A

Anti-CXCR3 Cy2

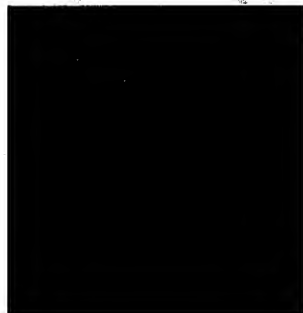


Fig. 29B

DAPI



Fig. 29C

U2OS: phMIG-flag + pEF-CXCR3a

## Figure 30

### The human *Survivin* promoter

Hs Survivin/BIRC5 promoter fragment (GenBank NT\_010641.14|Hs17\_10798 Homo  
sapiens chromosome 17 genomic contig; nucleotides 10102350-10102668)

```
1 cgtcgtggtg tgcaccgcga ccacgggcag agccacgcgg cgggaggact acaactcccc
61 gcacaccccc cgcgcgcccc cctctactcc cagaaggccg cggggggtgg accgcctaag
121 agggcgtgcg ctcccgacat gccccgcggc ggcgccattaa ccgccagatt tgaatcgcgg
181 gacccglttg cagaggtggc ggcggcggca tggtgcccc gaagttgccc cctgcctggc
241 agcccttctt caaggaaccac cgcattctcta cattcaagaa ctggcccttc ttggaggact
301 gcgcctgcac ccggaagcg
```

## Figure 31

### The human *Ubiquitin specific protease 16* promoter

Hs USP16 promoter ; range -499 to 100 >EP73421 (EPD database at <http://www.epd.isb-sib.ch/>)

```
TGCTGCCGTGCGCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGAGAATGCACTCCAGCCTGGGCGACAGAGGATATT  
CCGTCTCAAACAACAAAAATCACTCGCTCGGTTTTTTATTCTGACATGGTGCAGGAAGTAATTCAGACAACTTAGGTAC  
TCAGTTTGAAGTCGACAGGACAGAAATTAAGCGTTCCCTTTAGCTCCAAATATAATGTGTTCCAGAA  
AGGTAACCATCTAGGAACCTCCAAAGGCTCAGACCAACCCCGGATGCCACACTTCAGGAGAGCATTTATAAATCTCGTGTTAT  
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CCAAAGGCCCATGAGGGGA
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